Remarks

This is in response to an Official Action dated August 2, 2001. Reconsideration in view of the following is respectfully submitted.

A three-month extension of time is hereby respectfully submitted. Fees should be charged to deposit account no. 14-1263.

Applicants point out that a petition under 37 CFR 1.144 is concurrently submitted herewith for reconsideration of the restriction requirement. Subject to granting of the petition, applicants elect the 10 primer pairs set forth in amended claim 15. Should the Commissioner deny the petition, and agree with the examiner's position that only a single sequence is allowable within this application, then applicants maintain the election of x=1, as set forth in claim 16.

Claims 14-17 are pending. Claims 14, 15 and 16 are amended. Claim 14 is amended in response to the rejection under 35 U.S.C. 112, second paragraph, and is fully supported by the specification at page 2, line 15

The Examiner rejects claims 14 and 17 under 35 U.S.C. 103(a) as being obvious over Morgante et al. (U.S. Patent No.

5,955,276) in view of Mets et al. (U.S. Patent No. 5,332,408). Applicants note that Morgante has an earliest direct date of June 6, 1996 (publication date of the PCT), while the present application claims priority of a German application filed June 28, 1995, thus pre-dating the publication of Morgante. It is also unclear as to the true filing date of Morgante, as the PCT filing date of July 3, 1997 post-dates the PCT publication date! It is further noted that Morgante claims priority as a continuation-in-part of an earlier U.S. application filed November 28, 1994. The examiner is asked to confirm the correct filing and publication dates of the Morgante reference, and also to confirm that the subject matter relied on in the Morgante cip application (resulting in the patent) was in fact supported in the original parent application, thus providing entitlement to consideration as a 102(e) reference as of the 1994 date.

If the examiner confirms that in fact Morgante is a reference whose disclosure pre-dates applicant's priority date, then applicants argue as follows. Morgante teaches compound microsatellites used as self-teaching primers for screening genomes to detect polymorphisms. Mets teaches methods for more efficiently breeding novel species, subspecies or varieties of plants possessing desirable traits derived from other species, subspecies or varieties. In response, Applicants submit that

the references are inaccurately combined. Applicants point out that Mets only discloses the type of plants, and makes no mention of the use of microsatellite markers. Thus, it would not be obvious for someone of ordinary skill in the art to combine these two references, wherein one reference neither contemplates nor suggests its combination with the Morgante reference.

Moreover, the Morgante teaches away from the above-referenced application. At col. 3, lines 42-54, the reference discloses the drawbacks to the technology that the above-referenced application seeks to solve citing that the entire process is "time consuming, expensive and technically demanding and as a result has been somewhat limited in its application." The inventors however resolve the said drawbacks by disclosing a technology based on *compound* microsatellites based on a modified AFLP technology that allows for simultaneous selective amplification of compound simple sequence repeats (SSR). The reference however does not contemplate the use of this technology to simple perfect and imperfect simple sequence repeats (SSR) as in the above-referenced application.

In addition, Morgante does not require a prior knowledge of particular SSR locus sequences. In contrast, Applicants point

out that a prior knowledge of a particular SSR locus is required to practice their invention. Thus, if the references were combined, someone of ordinary skill in the art would still be required to have the requisite knowledge as to the particular SSR locus, because Morgante explicitly states at column 14, lines 23-24, that no prior knowledge is required.

Even if the references could be combined, which the Applicants do not concede, someone of ordinary skill in the art would obtain an invention requiring no prior knowledge of the particular locus, and an invention based upon the use of compound microsatellites wherein it "may be desirable to focus only on this single SSR or just a few SSRs, for subsequent analysis of a species". See col. 58, lines 39-41. However, Applicants point out that their invention is not limited to a single or few SSR. Rather, Applicants submit that their invention provides for microsatellites for simple perfect and imperfect SSR, wherein *greater than 200* SSR markers and loci are used.

In view of the foregoing, Applicants submit that the Examiner would be fully justified to reconsider and to withdraw this rejection. An early notice that this rejection has been reconsidered and withdrawn is, therefore, earnestly solicited.

Wherefore, allowance of all pending claims is earnestly solicited.

Respectfully submitted,

Bruce S. Londa (33,531)
Attorney for Applicant
Norris, McLaughlin & Marcus P.A.
220 East 42nd Street, 30th Floor
New York, N.Y. 10017
Telephone: (212)808-0700
Telecopier: (212)808-0844

Amended Claims - Marked-up Version

14. (amended) A method of genotyping plants of the *Triticum aestivum* species and the tribe Triticeae at a microsatellite locus, the method comprising

a) amplifying chromosomal DNA with oligonucleotide primer pairs specifically hybridizing to said locus of a region of said chromosomal DNA, wherein said region of the DNA comprises a repeated dinucleotide motif comprising at least one of the following selected from the group consisting of $(GA:CT)_n$, $(GT:CA)_n$, $(AT:TA)_n$, where $n \geq 10$, to obtain an amplification product,

b) size fractionating the amplification product to provide a measure of the said motif of the chromosomal DNA between said primer pairs,

wherein the size of the amplification product is polymorphic for said locus and provides a genotype for said plants.

15. (amended) The method of claim 14, wherein the primer pairs are selected from at least one of the pairs SEQ ID NO. x and SEQ ID NO. x+1, where x = 27, 93, 129, 203, 277, 315, 345, 361, 383 [odd numbers from 1 through 465].

16. (amended) The method of claim 14, wherein x= 1 [through 19].